Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Partitioning, Disaggregation, and Leasing of Spectrum	)	WT Docket No. 19-38
	)	

COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

The Satellite Industry Association ("SIA")[1] hereby submits these comments in the above-captioned proceeding regarding the Commission's proposed Enhanced Competition Incentives Program ("ECIP").[2]

I. INTRODUCTION

SIA applauds the Commission's goal of expanding broadband services in rural areas.[3] The satellite industry has a long track record in the United States and around the world of expanding cost-effective broadband services to places terrestrial infrastructure alone cannot economically reach, including rural areas. The Commission's ECIP proposal misses a critical opportunity to address regulatory barriers to the further deployment of satellite infrastructure in rural areas that could narrow the digital divide in rural America while enhancing a wide range of

[1] SIA Executive Members include: Amazon; The Boeing Company; DIRECTV; EchoStar Corporation; HawkEye 360; Intelsat S.A.; Iridium Communications Inc.; Kratos Defense & Security Solutions; Ligado Networks; Lockheed Martin Corporation; OneWeb; Planet; SES Americom, Inc.; Space Exploration Technologies Corp.; Spire Global Inc.; and Viasat Inc. SIA Associate Members include: ABS US Corp.; The Aerospace Corporation; Amazon Web Services; Artel, LLC; AST & Science; Astranis Space Technologies Corp.; Blue Origin; Eutelsat America Corp.; ExoAnalytic Solutions; Hughes; Inmarsat, Inc.; Kymeta Corporation; Leonardo DRS; Lynk; Omnispace; OneWeb Technologies; Ovzon; Panasonic Avionics Corporation; Peraton; SpaceLink; Telesat Canada; ULA; UltiSat and XTAR, LLC.

[2] *Partitioning, Disaggregation, and Leasing of Spectrum*, Further Notice of Proposed Rulemaking, FCC 21-120 (rel. Nov. 19, 2021).

[3] *See id.*, ¶ 1.

other broadband and non-broadband satellite services. Specifically, the Commission should condition the grant of any new Upper Microwave Flexible Use Service ("UMFUS") license on the licensee accepting the deployment of a certain number of additional satellite earth stations in its service area. Doing so would further the public interest by increasing competition in the broadband and satellite industry and enabling more intensive use of shared frequency bands where current FCC rules artificially and inefficiently constrain deployment of earth stations.

II. SATELLITE PLAYS A CRITICAL ROLE IN RURAL BROADBAND

SIA supports the Commission's mission of closing the digital divide by exploring ways to encourage buildout of broadband services in rural areas. The satellite industry, with its ability to serve anyone, anywhere across the United States, is particularly well-suited to meet this challenge. Satellite broadband serves nearly 2 million households in the United States. Less visibly, satellite networks provide broadband connectivity to a wide range of businesses in both urban and rural areas. Satellite's role in broadband connectivity is not limited to serving terrestrial customers directly. The industry also provides broadband connectivity to ships and aircraft; cellular backhaul, which expands the coverage of 4G and 5G mobile networks; connectivity to cloud computing resources from anywhere; end-to-end managed services for commercial and governmental customers; wide-area connection to Internet of Things devices; and earth imagery that can provide daily insight into our changing planet. Satellites also provide vital resiliency for the nation's communications and other critical infrastructure.[4] When there is a natural disaster or a fiber cut, investments in satellite infrastructure enable rapid connectivity restoration.[5]

[4] *See generally* Comments of the Satellite Industry Association, PS Docket No. 21-246 (filed Dec. 16, 2021).

[5] *Id.*

III. THE COMMISSION SHOULD REQUIRE NEW UMFUS LICENSEES GRANTED UNDER THE ECIP TO ALLOW ADDITIONAL SATELLITE EARTH STATIONS

While SIA is supportive of the Commission's overarching mission of expanding broadband in rural areas, the ECIP proposal misses a key opportunity to facilitate more intensive earth station siting in frequency bands shared by Fixed-Satellite Service ("FSS") and UMFUS networks. Specifically, the 27.5-28.35 GHz, 37.5-40 GHz and 47.2-48.2 GHz bands (collectively, the "Shared Bands") allocated for both FSS and UMFUS are critical swaths of satellite spectrum for siting gateway stations that serve as aggregation points for satellite traffic, including delivering consumer broadband to rural areas, as well as broadband to aircraft, ships, Federal and State government entities, and enterprise customers.

Under rules the Commission adopted in 2016, there is a limit of three earth stations per county that can operate without a requirement to protect UMFUS licensees.[6] In addition to complying with that quantitative cap, FSS earth stations must meet a power flux density ("PFD") limit based on population, among other restrictions.[7] Satellite access to the Shared Bands has proven challenging under these rules due to limited availability of locations that comply with these restrictions but also have the necessary mix of other factors that make for a suitable gateway, including proximity to an internet interconnection point, availability of local trained technicians, and the right type of environment to ensure minimal disruptions from natural disasters. The scarcity problem has been further exacerbated by a substantial increase in the number and capacity of next-generation satellite systems deployed across low Earth, medium Earth, and geostationary orbits, all of which require more gateways and access to more

[6] 47 C.F.R. § 25.136 (a)(4)(i).

[7] 47 C.F.R. § 25.136 (a)(4)(ii)-(iv).

frequencies to meet the demand for higher and higher throughput. In theory, FSS operators may make arrangements with UMFUS licensees to site a gateway earth station,[8] but UMFUS licensees have little incentive to accommodate satellite networks.

To ensure that it is using all available connectivity tools in its toolbox to close the digital divide in rural areas, the Commission should adopt policies that increase the deployment of both terrestrial and satellite services in shared frequency bands. Accordingly, the FCC should include conditions on any newly partitioned UMFUS licenses that would ease the siting process for earth stations operating in the Shared Bands. Specifically, the Commission should require any holder of a new UMFUS license created under the partitioning framework of the ECIP to permit the construction and operation of up to twelve additional earth stations in the license area in excess of the number permitted under Section 25.136 of the Commission's rules, so long as the earth stations can meet the PFD and associated protection requirements therein. Since these partitioned licenses are expected to cover areas with low population density, there is little need for a numerical earth station limit where the earth station contour would likely impact service to a minimal number of people. Such additional earth stations should be permitted on a non-discriminatory basis with no more than four earth stations from any one earth station applicant or affiliated or commonly controlled applicants. It would not be in the public interest to extend the buildout deadlines and license terms for licenses in the Shared Bands without some effort to facilitate more extensive satellite use of the band. This is especially true as the underlying premise of the proceeding is that the original licensees are unlikely to have constructed facilities

[8] *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al*., Report and Order, 31 FCC Rcd 8014, ¶ 46 (2016).

in the areas they are partitioning, but still have the ability to limit more widespread deployment of satellite earth stations in the Shared Bands.

IV. CONCLUSION

For the reasons set forth above, the Commission should condition new UMFUS licenses granted under the ECIP framework to require the licensee to permit the construction and operation of up to twelve additional earth stations in the license area beyond the number permitted under Section 25.136 of the Commission's rules and do so a non-discriminatory basis with no more than four earth stations from any one earth station applicant or affiliated or commonly controlled applicants.

Respectfully submitted,

/s/

SATELLITE INDUSTRY ASSOCIATION

Tom Stroup, President
1200 18th St., N.W., Suite 1001
Washington, D.C. 20036

February 28, 2022